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Paper 32
Date: 01/15/2020

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MOBILE TECH, INC.,
Petitioner,

v.

SENNCO SOLUTIONS INC.,
Patent Owner.

IPR2018-01218
Patent 9,664,336 B2

Before MICHAEL W, KIM, SCOTT C. MOORE, and JASON W. MELVIN, *Administrative Patent Judges.*

MOORE, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
Granting Patent Owner's Motion to Amend
35 U.S.C. § 318(a)

I. INTRODUCTION

Petitioner, Mobile Tech, Inc., filed a Petition (Paper 1, "Petition" or "Pet.") requesting *inter partes* review of claims 1 and 3–20 of U.S. Patent No. 9,664,336 B2 (Ex. 1001, "the '336 Patent"). Patent Owner, Sennco Solutions, Inc., declined to file a Preliminary Response. Paper 6. On January 16, 2019, we instituted an *inter partes* review as to all claims challenged in the Petition. Paper 7.

After institution, Patent Owner filed a Patent Owner Response (Paper 15, "Response" or "Resp."), Petitioner filed a Reply (Paper 19, "Reply"), and Patent Owner filed a Sur-reply (Paper 22, "Sur-reply"). In addition, Patent Owner filed a Contingent Motion to Amend (Paper 16, "Motion to Amend" or "MTA"), Petitioner filed a Response in Opposition to the Motion to Amend (Paper 20, "Motion to Amend Response" or "MTA Resp."), Patent Owner filed a Reply to Petitioner's Motion to Amend Response (Paper 23, "Motion to Amend Reply" or "MTA Reply"), and Petitioner filed a Sur-reply In Opposition to the Motion to Amend (Paper 28, "Motion to Amend Sur-reply" or "MTA Sur-reply"). An oral hearing was held on October 2, 2019, and a transcript of the hearing is included in the record (Paper 31, "Tr.").

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a). For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1 and 3–20 are unpatentable. We also determine that Petitioner has not met its burden to show by a preponderance of the evidence that proposed substitute claims 21–39 are unpatentable. Accordingly, we *grant* Patent Owner's Motion to Amend.

A. *Related Proceedings*

The Parties indicate that the ’336 Patent was asserted in *Sennco Solutions Inc. v. Mobile Technologies Inc.*, Case No. 16-cv-09668 (N.D. Ill.). Pet. 3; Paper 3. According to Patent Owner, however, the ’336 Patent no longer is asserted in that case. Paper 3.

Petitioner indicates that *inter partes* review proceedings involve patents related to the ’336 Patent: IPR2017-02199 (involving U.S. Patent 7,154,039 B1, final written decision entered Apr. 9, 2019), and IPR2017-02200 (involving U.S. Patent 9,303,809 B2, final written decision entered Mar. 27, 2019). Pet. 2.

Petitioner also indicates that pending U.S. Patent Application 15/606,357 claims priority to the application that issued as the ’336 Patent. *Id*.

B. *The ’336 Patent*

The ’336 Patent is directed to an apparatus and method for securing a device, such as a portable electronic device, to a fixture using a cable. Ex. 1001, 2:14–29. The invention allows for attaching and detaching the device from the fixture, and may provide for electrical security, such as an alarm indicating separation of the device from the cable. *Id.* at 1:66–2:11.

In general, the ’336 Patent describes a fixed portion including a post, from which a cable extends to a head unit and is secured to the head unit with a connector on the cable, and a spring to removably hold the connector. *Id.* at 2:28–38. The head unit secures the portable electronic device and, with the cable attached to the head unit, prevents the device from moving farther from the base than the length of the cable; the head unit may also

mate with the post, providing a stable resting place for the device. *Id.* at 5:9–11, 9:22–47.

C. *Challenged Claims and Asserted Grounds*

Petitioner contends that claims 1 and 3–20 of the '336 Patent are unpatentable pursuant to 35 U.S.C. § 103 based on seven different grounds.

Challenged claims 1, 9, and 14 are independent. Claim 1, reproduced below, is illustrative of the claimed subject matter.

> 1. A method for removably securing a device to a fixture, the method comprising:
> providing a post having a cable and a connector, wherein the post mounts on the fixture;
> connecting a head unit to the post with the connector, wherein the head unit has an opening through which the cable extends, wherein the head unit houses a spring arranged to assist in attaching the cable to the head unit, and wherein the head unit attaches to the device;
> inserting a key into the head unit to allow for removal of the cable from the head unit; and
> detaching the connector from the head unit to release the device from the post.

Petitioner asserts the following grounds of unpatentability, each based on 35 U.S.C. § 103:[1]

Ground	Claim(s) Challenged	35 U.S.C. §	Reference(s)
1	1 and 3–8	103(a)	Seabrook[2]

[1] Because the '336 Patent has an effective filing date prior to March 16, 2013, the effective date of applicable amendments to the Leahy-Smith America Invents Act ("AIA"), 125 Stat. 284 (2011), all references herein to 35 U.S.C. § 103 refer to the pre-AIA versions of that statute.

[2] WIPO Publication 2012/069816 A1, published May 31, 2012 (Ex. 1002).

Ground	Claim(s) Challenged	35 U.S.C. §	Reference(s)
2	9, 10, 12, 13	103(a)	Seabrook, Deconinck[3]
3	11	103(a)	Seabrook, Deconinck, Rabinowitz[4]
4	14–18, 20	103(a)	Seabrook, Deconinck, FOPM[5]
5	19	103(a)	Seabrook, Deconinck, Rabinowitz, FOPM
6	14–18, 20	103(a)	Seabrook, Deconinck, Fawcett[6]
7	19	103(a)	Seabrook, Deconinck, Rabinowitz, Fawcett

Pet. 4–5.

Petitioner also relies on the Declaration and Supplemental Declaration of Dr. Kimberly K. Cameron (Ex. 1012, "Cameron Declaration" or "Cameron Decl."; Ex. 1020, "Supplemental Cameron Declaration" or "Supp. Cameron Decl."), as well as the Declaration of Wade Wheeler (Ex. 1014). Patent Owner also relies on the Declaration and Supplemental Declaration of Robert Mizek (Ex. 2001, "Mizek Declaration" or "Mizek Decl."; Ex. 2014, "Supplemental Mizek Declaration" or "Supp. Mizek Decl.").

[3] U.S. Patent No. 7,327,276 B1, issued Feb. 5, 2008 (Ex. 1003).

[4] U.S. Patent 7,667,601 B2, issued Feb. 23, 2010 (Ex. 1004).

[5] Freedom ONE Product Manual (Ex. 1005), allegedly published at least as early as by July, 2011 (*see* Pet. 4; Ex. 1014 ¶¶ 8–17).

[6] U.S. Patent Application Publication No. 2011/0047844 A1, published Mar. 3, 2011 (Ex. 1006).

II. PATENTABILITY OF CHALLENGED CLAIMS

A. *Principles of Law*

An invention is not patentable under 35 U.S.C. § 103 "if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) where in evidence, so-called secondary considerations, including commercial success, long-felt but unsolved needs, and failure of others. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

When evaluating a combination of teachings, we must also "determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

B. *Level of Skill in the Art*

Petitioner contends that the cited references are representative of the level of ordinary skill in the art to which the '336 Patent pertains, and does not ask us to adopt a specific formulation regarding the level of ordinary skill. Pet. 9. Patent Owner does not dispute Petitioner's assertion or set forth a different formulation regarding the level of ordinary skill in the art. *See generally* Resp.

Based on those contentions, we decline to adopt a specific formulation regarding the level of ordinary skill in the art, and instead determine that the cited prior art references reflect the appropriate level of skill in the art at the time of the claimed invention. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

C. *Claim Construction*

Although the claim construction standard to be employed in an *inter partes* review has changed, the Petition in this proceeding was filed on June 6, 2018, which is before the effective date of the change in claim the construction standard.[7] Accordingly, we apply the "broadest reasonable construction" of the claims in light of the specification in which the claims appear. 37 C.F.R. § 42.100(b) (2017); *see also Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2142 (2016) (upholding the use of the broadest reasonable interpretation standard).

There is a presumption that claim terms are given their ordinary and customary meaning, as would be understood by a person of ordinary skill in the art in the context of the specification. *See In re Translogic Tech. Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). An applicant may rebut that presumption by providing a definition of the term in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). An applicant also may narrow the meaning of a claim term by disclaiming or disavowing claim scope; however, such a

[7] Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Oct. 11, 2018) (amending 37 C.F.R. § 42.100(b) effective November 13, 2018)

"disclaimer or disavowal of claim scope must be clear and unmistakable, requiring 'words or expressions of manifest exclusion or restriction' in the intrinsic record." *Unwired Planet, LLC v. Apple Inc.*, 829 F.3d 1353, 1358 (Fed. Cir. 2016) (quoting *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1327 (Fed. Cir. 2002)). In the absence of such a definition or disclaimer, limitations are not to be read from the specification into the claims. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

1. *"Post"*

Petitioner contends that the claim term "post" does not require construction, but also clarifies that the "post" need not be a "unitary" or "one-piece" structure. Pet. 8–9.

Patent Owner agrees that the claim term "post" does not require construction as it is "readily understood by one having ordinary skill in the art." Resp. 9–10. Patent Owner, however, argues that a "reasonable construction" would "include an 'elongated or vertical support such as a pillar or upright for placement on a display surface.'" *Id*. at 10. Patent Owner also argues that the recited "post" must be mounted "on" the surface (*id*. at 11), and that the "post" is "one specific structural component of the apparatus" (*id*. at 12). According to Patent Owner, it is apparent from the Specification that the recited "post" was not "intended to include a multi-component structure extending both above and below a counter surface." *Id*. at 14.

We agree with the parties that the claim term "post" does not require a comprehensive construction. It is apparent, however, that disputes exist regarding whether the recited "post" must be a single-component structure that must be separate from the "crown" and the "base," and whether portions

of the "post" may extend below a mounting surface. These specific disputes are addressed below.

Beginning with Petitioner's base contention, we initially agree that there is nothing to the word "post" that requires it to be a single-component structure that must be separate from the "crown" and the "base." In support of its argument that the claim term "post" excludes multi-component structures, Patent Owner cites Paragraph 27 of the Mizek Declaration and various portions of the '336 Patent Specification. Resp. 13–14 (citing Mizek Decl. ¶¶ 27, 28; Ex. 1001, 5:63, 5:66–67, 6:25–50, 11:1–2, 11:6–8). The cited portions of the Mizek Declaration, however, merely indicate that the term "post" should be given its plain and ordinary meaning in the context of the Specification, drawings, and claims (*see* Mizek Decl. ¶ 27), and state that independent claim 14 recites a "base" and "crown" separate from the "post" (*see id*. ¶ 28). The cited portions of the '336 Patent Specification are merely descriptions of preferred embodiments that do not rise to the level of disclaimers or lexicographic definitions (Ex. 1001, 5:63, 5:66–67, 6:25–50), and limitations of independent claim 14 that require a "post attached to the base" and a "crown" that is "attached to the post" (*id*. at 11:1–2, 11:6–8). Patent Owner does not cite any lexicographic definition or evidence that would justify limiting the claim term "post" to a single-component structure that is in all cases separate from the "crown" and the "base." Patent Owner also provides no persuasive explanation of why we should read the above-quoted limitations of claim 14 into independent claims 1 and 9, or the claims depending therefrom.

Based on the entire record before us, and on our review of the Specification and file history, we determine that the claim term "post" is not

limited to a single-component structure that must be separate from the "crown" and the "base."[8]

Beginning with Petitioner's base contention, we again initially agree that there is nothing to the word "post" that prevents it from extending below the mounting surface. *See* Pet. 13 (citing Ex. 1013; Cameron Decl. ¶ 65). In support of its argument that the "post" must be located "on" a surface (i.e., may not extend below the surface), Patent Owner argues that the preferred embodiments in the '336 Patent Specification make clear that the "post" is not "an amorphous sub-surface assembly of components," and that the "post" must be "attached relative to" a base and a crown. Resp. 14–15 (citing Ex. 1001, 5:25–6:55; Mizek Decl. ¶¶ 28–29); Resp. 17–18 (citing Ex. 1002, 2:66, 4:59–61, 5:38–39, Figs. 1–5). Patent Owner also argues that the recited "post" does not encompass a below-counter "security module." Resp. 18–19 (citing Ex. 1001, 6:5–6). Based on a dictionary definition, Patent Owner further argues that the common meaning of "on" is "over and in contact with that which supports from beneath." Resp. 34–35 (citing Ex. 2005, Def. 1; Mizek Decl. ¶¶ 50, 52. Patent Owner again, however, does not cite a lexicographic definition or other persuasive evidence that would justify limiting the claims to preferred embodiments from the Specification, or excluding from the scope of the claim term "post" below-counter components, such as a security module. *See, e.g.*, Tr. 34:23–35:22. Moreover, claim 1 is the only claim that recites that the "post mounts on the fixture," and Patent Owner does not offer any persuasive reason that could

[8] To the extent claim 14, or some other claim, contains language that further limits the structure of the recited "post," Petitioner must, of course, account for such additional limitations.

justify reading this limitation into the other two independent claims. We additionally find that Patent Owner has not provided any persuasive response to Petitioner's evidence that one skilled in the art would have understood the term "on" to not be limited to embodiments that extend solely from one side of a surface. *See* Pet. 13 (citing Ex. 1013; Cameron Decl. ¶ 65); *see also* Mizek Decl. ¶ 25 (not directly addressing Exhibit 1013 or Dr. Cameron's testimony); Ex. 2005, Def. 2 (indicating that the word "on" may encompass "contact and support from elsewhere than beneath"). Indeed, under cross-examination, Patent Owner's expert agreed with Petitioner's construction. *See* Ex. 1019, 26:2–27:11 ("Q. Okay. And claim 1 does not require that no part of the post is below the fixture; right? A. Claim 1 does not require that no part of it is below the fixture, although the specifications don't teach that any part may be below the fixture."). For these reasons, we find Dr. Cameron's opinions on this issue persuasive and credit them. *See* Cameron Decl. ¶ 65.

Based on the entire record before us, and on our review of the Specification and file history, we agree with Petitioner that the claim term "post" can encompass multi-component structures having sub-surface components.[9] We further determine that claim 1's recitation of "post mounts on the fixture" does not exclude embodiments in which the recited

[9] To the extent the claims require additional components, such as those Patent Owner calls a "security module" (*see* Resp. 19), Petitioner must demonstrate that the prior art would have taught or suggested those components arranged as recited in the claims. But this issue is separate from the claim construction dispute regarding whether the claim term "post" necessarily excludes sub-surface components.

"post" comprises sub-surface components. *See* Ex. 1013; Cameron Decl. ¶ 65.

Having resolved all disputes between the parties regarding the scope of the claim term "post," there is no further need to construe this claim term. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)) ("[W]e need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy.'").

2. *"Crown"*

Petitioner contends that the claim term "crown" does not require construction. Pet. 8. Patent Owner asserts that a "suitable definition" of "crown" is "something felt to resemble the form or shape of a wreath or crown: such as . . . the knurled cap on top of the stem for winding a watch." Resp. 20 (quoting Ex. 2007, Def. 5). Patent Owner also argues that the Specification consistently refers to the "crown" as being "an attachable element that is hollow to permit passage of a cable." Resp. 20 (citing Ex. 1001, 6:39–47). In its Reply, Petitioner does not dispute that the claim term "crown" can refer to an attachable element that is hollow to permit passage of a cable. Reply 3–4.

We agree with the parties, and thus determine, that the claim limitation "crown" encompasses an attachable element that is hollow to permit passage of a cable. It is unnecessary for us to further construe this claim term. *See Nidec*, 868 F.3d at 1017.

3. *"The head unit houses a spring"*

Patent Owner argues that the claim limitation "the head unit houses a spring" necessarily "requires that [the] spring is positioned within the head unit *throughout the operation of the claimed method*." Resp. 20–21 (emphasis added). In support of this construction, Patent Owner cites instances in which the term "houses" is used in the claims, and portions of the drawings and Specification that allegedly describe a "fixed relationship" between the spring and the head unit. Resp. 21 (citing Ex. 1001, 7:22–23, Claim 1; Mizek Decl. ¶¶ 32–33). Petitioner contends that nothing in the claims or the Specification requires that the spring be housed within the head unit "at all times/permanently." Reply 5.

Based on our review of the Specification and prosecution history, we agree with Petitioner that the claim term "the head unit houses a spring" does not require that the head unit house a spring at all times and/or throughout the operation of the claimed method. The limitation itself does not recite such a requirement, and Patent Owner has not cited any lexicographic definition, disclaimer, or other evidence sufficient to read such an unrecited limitation into the claims. Having resolved the parties' dispute, it is unnecessary for us to further construe this claim term. *See Nidec*, 868 F.3d at 1017.

D. *Secondary Considerations*

Patent Owner's Response does not direct us to any evidence of secondary considerations. *See generally* Resp. Accordingly, any such arguments have been waived. *See* Paper 8, 5.

E. *Scope and Content of Prior Art; Differences between Claimed Subject Matter and Prior Art; Legal Conclusion of Obviousness*

1. *Ground 1: Alleged Obviousness of Claims 1 and 3–8 over Seabrook*

Seabrook discloses an "electronic device display and security unit." Ex. 1002, 1:3. To this end, Seabrook discloses a display module for holding a mobile electronic device connected to a security module with a retractable tether. *Id.* at 2:18–33. The display module includes a "display module mounting pod" to dock with the security module, providing a rest position for the mobile device on display. *Id.* at 4:36–5:19. Seabrook discloses that the display module may be removable from the tether by using a compressible collar that secures into the display module and prevents an enlarged end of the tether from retracting. *Id.* at 14:26–16:2, 27:15–28:3. A key inserted into the display module mounting pod allows a user to compress the collar so as to release it and the tether from the display module mounting pod. *Id.* at 16:4–14, 28:5–14.

a. *Claim 1*

Petitioner contends that Seabrook teaches or suggests all limitations of claim 1. In particular, Petitioner contends that Seabrook's electronic device display and security unit includes a post depicted in Figures 1–7 that includes

> "female docking pod 509" (including "female region 508"), "threaded plug 510" (including "outwardly extending flange 511"), "washer 512," "washer 515," "rotating cup 516," "rotating collar 517" (including "lugs 518"), and "security module 530" (including "upper body 531" and "lower body 532").

Pet. 10. Petitioner contends that tether 504 and end 700 depicted in Figure 7a are a "cable" and "connector" of the type recited in claim 1. *Id*. at 13. Petitioner contends display module 39, depicted in Figures 1a, 1b, 3, and 4 of Seabrook, corresponds to the recited "head unit" that is connected to the recited post with a connector. *Id*. at 14–15. In connection with this assertion, Petitioner concedes a "minor" modification would have been necessary "to utilize 'display module 39' with the post in the embodiment shown in Figures 5–7," i.e., "the shape of the top surface of the post (the 'mating female region 508') would need to be modified to correspond with the shape of the male docking means." *Id*. at 15–16. Petitioner contends that such a modification would have been obvious to a person of ordinary skill, particularly in view of teachings in Seabrook that features of different embodiments may be combined, and that the male and female docking means should mate with one another. *Id*. at 14–16 (citing Ex. 1002, 6:1–5, 26:19–23, 28:28–33, 37:18–23).

Petitioner also contends that aperture 48 of Seabrook, which is located at the end of channel 53, corresponds to the recited "opening through which the cable extends" (*see* Pet. 16–17); that collar 11 corresponds to the recited "a spring arranged to assist in attaching the cable to the head unit" (*see id*. at 18–19); and that live mobile electronic device 18 is a "device" attached to the "head unit" (*see id*. at 19–20). Petitioner further contends that Seabrook teaches "inserting a key" (i.e., key 12) "into the head unit to allow for removal of the cable from the head unit" and "detaching the connector from the head unit to release the device from the post." *See id*. at 20–22. In particular, Petitioner points out that when Seabrook's key 12 is inserted into display module 39 (the head unit), the key narrows the longitudinal split in

collar 11 (the identified spring), allowing collar 11 and tether 504 to pass downwards through channel 53. *Id*. Petitioner's contentions regarding claim 1 are supported by testimony from Dr. Cameron. *See* Cameron Decl. ¶¶ 49–82.

We are persuaded by Petitioner's contentions that Seabrook teaches the undisputed limitations of claim 1. We also are persuaded by Petitioner's undisputed contention that one of ordinary skill in the art would have had reason to modify the shape of the top surface of the post (the "mating female region 508") to be modified to correspond with the shape of Seabrook's male docking means, including shank 44. *See* Pet. 15–16, Cameron Decl. ¶¶ 68–71. We now turn to the contested limitations of claim 1.

Patent Owner argues that the components Petitioner identifies as a "post" are instead an "amorphous above- and sub-surface assembly of components" that does not constitute a "post." *See* Resp. 34, Resp. 23–24 (citing Mizek Decl. ¶ 52). This argument is not persuasive because we determined above that the claim term "post" does not exclude structures with multiple components, and structures that include sub-surface components. *See* § II.C.1, *supra*. We also determined above that the claim limitation "mounts on the fixture" does not preclude the recited "post" from including sub-surface components. *See id*.

Patent Owner also argues that one of skill in the art would not have considered the components identified by Petitioner to constitute a "post." *See* Resp. 34 (citing Mizek Decl. ¶ 52). This argument is not persuasive because the supporting testimony of Mr. Mizek also relies on claim construction positions that are inconsistent with those we determined above, and assumes, without adequate explanation or support, that the term "post"

itself indicates that it may not be taller than it is wide. *See* Mizek Decl. ¶ 52. For these reasons, we are persuaded by Petitioner's evidence that Seabrook teaches a "post." *See* Pet. 11–12; Cameron Decl. ¶¶ 42–54.

Patent Owner further argues that Seabrook does not teach "a head unit that houses a spring" because collar 11 (the alleged "spring") is "moveable in and out of the display module mounting pod taught by Seabrook" (the alleged "head unit"). Resp. 35–36 (citing Mizek Decl. ¶¶ 55, 62); *see also* Resp. 23–24 (citing Mizek Decl. ¶¶ 54–57) (making similar argument). This argument is not persuasive because we determined above that the claim limitation "the head unit houses a spring" does not require that the spring is positioned within the head unit throughout the operation of the claimed method. *See* § II.C.3, *supra*. For these reasons, we are persuaded by Petitioner's argument that Seabrook's collar 11, which functions to retain end 700 of tether 504 within display module 39, is a "spring arranged to assist in attaching the cable to the head unit" of the type required by claim 1. *See* Pet. 17–19; Cameron Decl. ¶¶ 29, 75–77.

For the above reasons, and having made all of the factual determinations required by *Graham*, we determine based on the totality of the evidence and arguments that Petitioner has shown by a preponderance of the evidence that claim 1 is unpatentable over Seabrook under 35 U.S.C. § 103.

b. *Claims 3–8*

Regarding claim 3, Petitioner contends that display mounting pod 4 of Seabrook's display module 39 (the identified head unit) includes longitudinal lateral projection 45, which mates with longitudinal lateral depression 43 in docking means 42 of the identified post, thereby aligning

the head unit with the post in the recited manner. Pet. 23. In response, Patent Owner reiterates its arguments regarding claim 1. Resp. 37. These arguments are not persuasive for the reasons discussed above.

Patent Owner also argues that Petitioner, by including security module 530 within its definition of "post," has violated the doctrine of claim differentiation. *Id*. This argument is not persuasive because Patent Owner does not provide any coherent explanation of why Petitioner's contentions would violate the doctrine of claim differentiation. In particular, Patent Owner has not identified an element in claim 3 that Petitioner, in its contentions regarding claim 1, includes within Seabrook's "post." Thus, we are not persuaded that the doctrine of claim differentiation applies. We determine that Petitioner's additional contentions regarding claim 3 are persuasive.

Regarding claim 4, Petitioner contends that end 700 (the identified connector) of Seabrook's tether is aligned in the head unit when the tether is entered into channel 53 of display module 39. Pet. 24. Regarding claim 5, Petitioner contends that end 700 of Seabrook's tether (the identified connector") is positioned "near the opening of the head unit to secure the cable to the head unit," as recited in claim 5, when Seabrook's tether is inserted into channel 53. *Id*. at 24–25. In response, Patent Owner reiterates its arguments regarding claim 1 (which are not persuasive for the reasons set forth above), but does not otherwise dispute Petitioner's contentions regarding claims 4 and 5. Resp. 37. We determine that Petitioner's additional contentions regarding claims 4 and 5 are persuasive.

Turning to claim 6, Petitioner contends that the act of inserting key 12 into Seabrook's head unit, to narrow the longitudinal split in collar 11 (the

identified spring), "displac[es] the spring from the opening to remove the cable form the head unit" in the recited manner. Pet. 26. Patent Owner argues that, in Seabrook, the collar is displaced "toward the opening and not from the opening." Resp. 38 (emphasis omitted) (citing Mizek Decl. ¶ 66). We are persuaded that Petitioner is correct. The act of inserting key 12 into Seabrook's head unit narrows collar 11 within the opening, thereby displacing the collar away from the opening. *See*, *e.g.*, Ex. 1002, 28:11–14. Moreover, as Petitioner points out in its Reply, Mr. Mizek admitted during his deposition that Seabrook's collar is displaced from the display module's opening. Reply 8–9 (citing Ex. 1019, 67:9–68:13). We determine that Petitioner's additional contentions regarding claim 6 are persuasive.

Regarding claims 7 and 8, Petitioner contends that Seabrook's "retraction unit 540" is a reel located in a post that "retract[s] the cable with respect to the fixture," as recited in claim 7, and that Seabrook's "double-sided pressure-sensitive adhesive tape, which can adhere to the received live mobile electronic device 18" is an "adhesive attached on the head unit to adhere the device to the head unit," as recited in claim 8. Pet. 26–28. Petitioner's assertions concerning claims 3–8 are supported by testimony from Dr. Cameron. *See* Cameron Decl. ¶¶ 83–84. Patent Owner reiterates its arguments concerning claim 1 (which are not persuasive for the reasons discussed above), but does not otherwise contest Petitioner's contentions regarding claims 7 and 8. We determine that Petitioner's additional contentions regarding claims 7 and 8 are persuasive.

For the above reasons, and having made all of the factual determinations required by *Graham*, we determine based on the totality of the evidence and arguments that Petitioner has shown by a preponderance of

the evidence that claims 3–8 are unpatentable over Seabrook under 35 U.S.C. § 103.

2. *Ground 2: Alleged Obviousness of Claims 9, 10, 12, and 13 over Seabrook and Deconinck*

Deconinck discloses a security system for power and display of consumer electronic devices. Ex. 1003, 1:1–3. Deconinck's system includes switch 37, which may be an "outwardly biased plunger mechanism," that functions to produce a signal when a handheld device is removed in an unauthorized manner. *Id*. at 10:66–11:11, 11:18–19. Deconinck's "sensor for producing a detectable signal" may "communicate with a satellite 80 and or/a [sic] command module 300 via an electrically conducting wire or wirelessly." *Id*. at 11:25–28.

a. *Claim 9*

Independent claim 9 is similar to claim 1, but also requires "attaching" the post to the fixture, that the post have a "crown," that the recited cable be "coiled around a reel in the post," and that the head unit enclose a "printed circuit board ('PCB')" that "wirelessly communicates with an alarm to provide electrical security to the device." Petitioner contends that Seabrook teaches attaching the post to "display panel 506" (i.e., a fixture), that female docking pod 509 of Seabrook's post corresponds to the recited "crown," and that Seabrook's retraction unit 540 corresponds to the recited "reel in the post." Pet. 32–33. Petitioner further contends that Deconinck's sensor, which has the ability to wirelessly communicate a signal when an electronic device is removed without authorization, teaches or suggests a "printed circuit board" that "wirelessly communicates" in the manner recited in claim 9. *Id*. at 33. Though Deconinck doesn't explicitly disclose a printed circuit

board, Petitioner alleges that one skilled in the art would have "readily understood and/or found obvious that a 'sensor' including a mechanically activated plunger like 'switch 37' and a wireless transmitter" would have included "a printed-circuit board (PCB) housed within 'housing 30.'" Pet. 29. Petitioner further contends that one of ordinary skill in the art would have been motivated to modify Seabrook's display module mounting pod (head unit), to incorporate Deconinck's sensor mechanism and wireless transmitter, because doing so would likely have successfully yielded a system that would have allowed store personnel to remotely monitor the security status of an electronic device. *Id*. at 30. Petitioner's assertions concerning claim 9 are supported by testimony from Dr. Cameron. *See* Cameron Decl. ¶¶ 85–93.

We are persuaded by Petitioner's contentions that Seabrook and Deconinck teach or suggest the undisputed limitations of claim 9. We now turn to the contested limitations of claim 9, and to Patent Owner's other arguments regarding the alleged obviousness of claim 9.

Patent Owner argues that Deconinck teaches a "below counter reel assembly." Resp. 28 (citing Mizek Decl. ¶ 69). This argument is not persuasive because Petitioner's contentions do not rely on Deconinck's reel assembly. *See* Pet. 32–33. Patent Owner also argues that Deconinck does not teach a head unit that is detachable from a post. Resp. 29 (citing Mizek Decl. ¶ 69). This argument is not persuasive because Petitioner relies on Seabrook, and not Deconinck, to supply the recited head unit and post. *See* Pet. 32–33. Patent Owner further argues as follows:

> Seabrook does not teach or suggest (i) "attaching a post to the fixture, the post having a crown"; (ii) "a cable coiled around a

> reel in the post"; and (iii) "a head unit encloses a spring and a printed circuit board ("PCB")," as required in Claim 9.

Resp. 39. Patent Owner does not offer a substantive explanation or evidence to support its contention that Seabrook does not teach or suggest "attaching a post to the fixture." *See id*. We are persuaded by Petitioner's evidence that Seabrook teaches this claim limitation. *See* Pet. 32–33 (citing Cameron Decl. ¶ 93).

Patent Owner also does not offer any substantive explanation or persuasive evidence to counter Petitioner's showings regarding claim 9's recitations of "a cable coiled around a reel in the post" and "the head unit encloses a spring and a printed circuit board ('PCB')." *See* Resp. 39–40. We are persuaded by Petitioner's evidence that Seabrook and Deconinck teach or suggest both of these limitations. *See* Pet. 32–33; Cameron Decl. ¶ 93.Patent Owner argues that the structure that Petitioner identifies as the "crown" "consumes part of what Petitioner identifies as the post." Resp. 39–40. This argument is not persuasive because, for the reasons set forth above, the recitation in claim 9 of "the post having a crown" encompasses embodiments in which the crown is part of the post. Patent Owner does not offer any persuasive explanation or evidence to the contrary, and we are persuaded by Petitioner's evidence that Seabrook teaches this limitation. *See* Pet. 32–33 (citing Cameron Decl. ¶ 93).

Patent Owner next argues that Petitioner has failed to offer an adequate rationale that articulates "how or why the combination" of Seabrook and Deconinck would occur, and that Petitioner's obviousness argument is based on hindsight. Resp. 40 (emphasis omitted). The portions of the Response that follow are not persuasive, however, because they do not

provide a substantive explanation of why Petitioner's rationale for combining *Seabrook* and *Deconinck* is inadequate. Instead, Patent Owner attacks Petitioner's "obviousness 'analysis' relative to combining the *alternatives within Seabrook*." *See* Resp. 41–42 (emphasis added). As discussed above, Petitioner has made a persuasive showing that one of skill in the art would have had reason to modify the top surface of Seabrook's post (the "mating female region 508") to correspond with the shape of Seabrook's male docking means, including shank 44. *See* § II.E.1.a, *supra*; Pet. 15–16; Cameron Decl. ¶¶ 68–71. Petitioner also has made a sufficient showing that one of ordinary skill in the art would have had reason to combine the teachings and suggestions of Seabrook and Deconinck in the manner recited in claim 9. *See* Pet. 28–34 (citing Cameron Decl. ¶¶ 86–93).

Patent Owner further argues that Petitioner has not set forth a proper *Graham* analysis that identifies the differences between the prior art and the challenged claims. Resp. 42–43. In particular, Patent Owner asserts that Petitioner "entirely ignores the teachings of Seabrook that explicitly disclaim the need for an alarm," and "does not provide any insight into how or what to combine between the two offered pieces of art." *Id*. at 42. These arguments are not persuasive because Petitioner provides a detailed comparison between the challenged claims and the asserted prior art references. *See* Pet. 28–34. Patent Owner offers no persuasive explanation of why this comparison would fail to satisfy *Graham*. *See* Resp. 42–43.

We also are unpersuaded by Patent Owner's assertion that Seabrook teaches away from the use of an alarm. *See* Resp. 27–28 (citing Mizek Decl. ¶ 43). The portions of Seabrook cited by Patent Owner (*see* Resp. 27 (citing

Ex. 1002, 2:12–16, 3:18–22))[10] merely indicate that Seabrook's tether is robust, and thereby avoids the *need* for an alarm. The lack of *need*, however, does not rise to the level of a teaching away, especially where, as here, the strength of Seabrook's tether is not relevant to the type of alarm contemplated in the Petition. Specifically, in Petitioner's proposed combination of Seabrook and Deconinck, the alarm is triggered by separation of the electronic device from the mounting pod (i.e., the head unit), not separation of the head unit from the tether. *See* Pet. 29–30. Patent Owner does not explain how a strong tether between the base and the head unit would have prevented someone from detaching a separate electronic device that is not attached to the tether from the head unit. Petitioner has provided a detailed explanation, backed by persuasive evidence, of why one of skill in the art would have had reason to trigger an alarm in the event the electronic device is removed from the mounting pod. *See* Pet. 28–35; Cameron Decl. ¶¶ 86–93. We find Petitioner's explanation and rationale persuasive and sufficient under the relevant case law.

Patent Owner additionally argues that Petitioner has failed "to explain how or why the combination" of Seabrook and Deconinck "would occur," or to "articulate why an inventor would look to Seabrook . . . with Deconinck . . . to solve problems of complex security installations." Resp. 43 (emphasis omitted). Patent Owner's argument is not persuasive. Petitioner has provided a detailed explanation that specifies the details of the proposed combination, and explains why one of ordinary skill in the art

[10] Patent Owner cites column 3, lines 12–16 and column 4, lines 18–22, but the quoted portions are at column 2, lines 12–16 and column 3, lines 18–22, respectively.

would have had reason to combine the teachings of Seabrook and Deconinck in the asserted manner. *See* Pet. 28–35; Cameron Decl. ¶¶ 86–93.

Patent Owner also argues that incorporating Deconinck's plunger, wireless transmitter, and battery into Seabrook's display mounting pod, would have been a "wholesale change" to Seabrook, and that it would not have been possible to incorporate these structures into the "small module" of Seabrook. Resp. 44–45. This argument is not persuasive because the "test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference. . . . Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425 (CCPA 1981).

Patent Owner's final argument regarding claim 9 is that Seabrook and Deconinck could not have been combined "in any event," because the combination would have changed the basic principles of operation of the prior art references and rendered them inoperable for their intended purpose. Resp. 45. In particular, Patent Owner argues that Deconinck's device is attached to a housing by multiple components, and that Deconinck does not teach or suggest "a releasable head unit that enables a use[r] to use the device in a relatively unencumbered manner." *Id*. at 46. This argument is not persuasive because Petitioner relies on Seabrook, not Deconinck, to supply the post and head unit of claim 9. Patent Owner's argument does not address the combination of references proposed by Petitioner, much less persuasively explain why such a combination would not have operated for its intended purpose.

For the above reasons, and having made all of the factual determinations required by *Graham*, we determine based on the totality of the evidence and arguments that Petitioner has shown by a preponderance of the evidence that claim 9 is unpatentable under 35 U.S.C. § 103 over Seabrook and Deconinck.

b. *Claims 10, 12, and 13*

Regarding claim 10, Petitioner contends that the step of "triggering, by the PCB, an audible alarm in response to an unauthorized separation of the device from the head unit" is taught or suggested by Deconinck's disclosure that satellite 80 "may include a visible and or audible indicator for indicating a status of the sensor." Pet. 34–35. Petitioner contends that Deconinck's sensor, including switch 37, teaches or suggests "monitoring the attachment of the head unit to the device by the PCB," as recited in claim 12. *Id*. at 35. Petitioner further contends that claim 13's recitation of "displaying the device on the head unit, wherein a recession in the crown receives the head unit" is satisfied when shank 44 of Seabrook's head unit is inserted into mating female region 508 of Seabrook's post. *Id*. Petitioner's assertions concerning claims 10, 12, and 13 are supported by testimony from Dr. Cameron. *See* Cameron Decl. ¶¶ 93–94.

In response, Patent Owner reiterates its arguments regarding claim 9, which are not persuasive for the reasons discussed above. *See* Resp. 48. Patent Owner does not raise any separate substantive arguments regarding claims 10, 12, and 13. *See id*.

We determine that Petitioner's additional contentions regarding claims 10, 12, and 13 are persuasive. For the above reasons, and having made all of the factual determinations required by *Graham*, we determine

based on the totality of the evidence and arguments that Petitioner has shown by a preponderance of the evidence that claims 10, 12, and 13 are unpatentable under 35 U.S.C. § 103 over Seabrook and Deconinck.

3. *Ground 3: Alleged Obviousness of Claim 11 over Seabrook, Deconinck, and Rabinowitz*

Rabinowitz discloses an apparatus for securely displaying, marketing, and recharging battery-operated hand-held electronic devices. Ex. 1004, 1:28–30. The disclosed apparatus includes device engaging means B that may trigger an alarm when power plug 28 is disconnected from the hand-held electronic device. *Id*. at 11:57–13:3. Device engaging means B includes daughterboard 15, which detects power disruptions such as those caused by the disconnection of the power cable from a hand-held electronic device, and triggers an alarm. *Id*.

Claim 11 depends from claim 9, and further recites the step of "connecting a power cord to the device wherein unauthorized separation of the device from the power cord triggers an audible alarm." Petitioner contends that Seabrook discloses a power cord connected to the device (i.e., electrical connector 830). Pet. 37–38. Petitioner further contends that one of ordinary skill in the art would have had reason to incorporate Rabinowitz's power monitoring and alarm functionality into Seabrook's head unit because doing so would likely have successfully yielded a system that would have notified store personnel whenever an electronic device was not properly attached to its charging cable. *Id*. at 37–40. Petitioner's contentions concerning claim 11 are supported by testimony from Dr. Cameron. *See* Cameron Decl. ¶¶ 95–104.

In response, Patent Owner asserts that Petitioner is collaterally estopped from combining Seabrook and Rabinowitz because, "[a]fter a full adjudication, the Board decided" in IPR2017-02200 "that it was not obvious to combine Seabrook and Rabinowitz." Resp. 49. The panel in IPR2017-02200 was unpersuaded by Petitioner's argument that Seabrook and Rabinowitz rendered obvious a dependent claim that required "a plunger in the head unit . . . wherein the head unit triggers an alarm indicative of the plunger in the second position." Ex. 2008, 33. In that case, the petitioner relied on Rabinowitz to supply the recited plunger. *Id*. Though the panel was unpersuaded by the petitioner's arguments, it did not base its decision on a finding that Seabrook and Rabinowitz could not have properly been combined. Rather, the panel determined that the petitioner failed to assert in the petition that Seabrook taught an electrical connection between the post and the head unit. *Id*. at 34. Here, the asserted combination is not merely Seabrook and Rabinowitz; it is Seabrook, Deconinck, and Rabinowitz. And significantly, Petitioner relies on Deconinck, not Rabinowitz, to supply the plunger switch of the proposed combination. *See* Pet. 29–31. Put another way, the panel in IPR2017-02200 did not address the issue of whether Seabrook, Deconinck, and Rabinowitz could have been combined in the manner Petitioner contends in this case. Accordingly, we determine that collateral estoppel does not apply.

Patent Owner also repeats its arguments that Seabrook and Deconinck do not teach various limitations of claim 9. *See* Resp. 49–50. These arguments are not persuasive for the reasons set forth above. *See* § II.E.2.a, *supra*. Patent Owner similarly argues that Rabinowitz "does not cure the deficiencies of Seabrook and Deconinck." Resp. 50. This argument is not

persuasive because we have determined that Petitioner's contentions regarding Seabrook and Deconinck are not deficient. *See* § II.E.2.a, *supra*.

Patent Owner next argues that Rabinowitz's alarm would not operate in Seabrook. According to Patent Owner, Rabinowitz's "motherboard 20" is located under "device support C" and "alarms from under the display fixture." Resp. 51–52. Thus, Patent Owner reasons, in Petitioner's proposed combination, "there would be no connection between the substituted Rabinowitz daughterboard and the corresponding 'under-fixture' motherboard for activating the alarm." *Id*. at 52. Patent Owner also characterizes Rabinowitz as teaching a "complex sub-cabinet assembly" that is "mounted behind a large fixture" and "could not be packaged in an above-counter post." Resp. 29–30. These arguments are not persuasive because Petitioner does not rely on Rabinowitz's "motherboard 20," or the accompanying "sub-cabinet assembly" that is allegedly "mounted behind a large fixture," as part of its proposed combination of references. *See* Pet. 38–40.

Patent Owner further argues that it would not be "simple or obvious" to add the Rabinowitz daughterboard to Seabrook's device. Resp. 52–53. In particular, Patent Owner argues that Petitioner has not explained "how a power supply would be connected or interrupted by the addition of a plunger" to Seabrook. *Id*. This argument is not persuasive because Petitioner has provided a detailed explanation of how the power supply would have been connected. *See* Pet. 37–38.

Patent Owner also argues that, given Deconinck's internal battery, there would have been no need for a power cord. Resp. 29. This argument is not persuasive. Instead, we are persuaded that the power cord would have

been needed to deliver power to the electronic device, regardless of whether the power came from an internal battery or an external source. *See* Pet. 37–38.

Patent Owner also argues that Petitioner has not "proffered a prior art combination that includes all necessary elements [(i.e., Rabinowitz's motherboard)] to allow the alarm to function." Resp. 53. This argument is not persuasive. The proposed combination of Seabrook and Deconinck already includes the ability to wirelessly communicate with an alarm. *See* § II.E.2.a, *supra*. Patent Owner does not provide any persuasive explanation of why this wireless communication capability could not have been utilized with Rabinowitz's daughterboard.

Patent Owner additionally argues that the wires of Rabinowitz "would eventually tangle and knot" in the proposed combination (Resp. 30–31, 53), and that the proposed combination "would not lead to a better retail experience for the user nor cure the existing problems with Seabrook." Resp. 53. These arguments misconstrue the nature of Petitioner's contentions and are unpersuasive. For example, Petitioner does not rely on Rabinowitz's wires; it relies on Seabrook's coiled "electrical connector 830." *See* Pet. 37–38. In addition, Patent Owner does not provide any persuasive or well-developed explanation of why monitoring for disconnection of a power cord would have negatively impacted the retail experience, much less create negative effects so severe that they would have taught away from the proposed combination. *See* Resp. 53; Mizek Decl. ¶ 84.

Finally, Patent Owner argues that Petitioner fails to "provide any insight into how or what to combine" and "does not reasonably explain why

or how the combination would occur in a manner that functions." Resp. 54. These poorly-developed arguments are not persuasive. Petitioner has provided detailed contentions that explain how the teachings and suggestions in the prior art line up with the limitations of claim 11, and has provided a persuasive and comprehensive explanation of why one skilled in the art would have combined the relevant teachings in the claimed manner. *See* Pet. 36–40; Cameron Decl. ¶¶ 95–104.

For the above reasons, and having made all of the factual determinations required by *Graham*, we determine based on the totality of the evidence and arguments that Petitioner has shown by a preponderance of the evidence that claim 11 is unpatentable under 35 U.S.C. § 103 over Seabrook, Deconinck, and Rabinowitz.

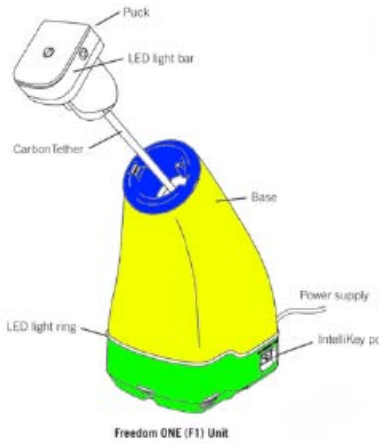
4. *Ground 4: Alleged Obviousness of Claims 14–18 and 20 over Seabrook, Deconinck, and FOPM*

FOPM discloses a security system "that allows you to display, power, and secure small merchandise using a single stand-alone device" that can "mount on any flat surface . . . without drilling or wiring." Ex. 1005, 3.

Independent claim 14 is a system claim, but most of its elements are substantively similar to elements recited in method claim 9. Claim 14 additionally requires a "base" that "mounts to the fixture," and a crown with "a recession formed therein" that is "attached to the post . . . wherein the cable extends through the crown."

a. *Claim 14*

Petitioner contends that FOPM teaches the recited base, post, reel, cable, and crown. Pet. 40–46. A figure from page 3 of FOPM, with colored highlighting added by Petitioner, is reproduced below.



Id. at 42. The above figure depicts, with green, yellow, and blue highlighting, respectively, the portions of FOPM's security system that Petitioner contends correspond to the recited base, post, and crown of claim 14. *Id*. at 42–43. Petitioner also contends that FOPM's security system includes a "CarbonTether housing" (the recited "retractable reel") containing a "CarbonTether cable" (the recited cable) mounted within the yellow-highlighted post. *Id*. at 43. Petitioner relies on the combination of Seabrook and Deconinck, in substantially the same manner discussed above, to supply the recited "head unit connected to the cable," "printed circuit board," and "spring which assists in attachment of the cable to the head unit" of claim 14. *See* Pet. 52–53.

Petitioner contends that one skilled in the art would have realized that combining Seabrook's head unit with FOPM's base, post, crown, cable, and reel, would likely have successfully yielded a system that could have been more easily installed on flat surfaces, without the need to drill holes through a display surface. *Id*. at 44. According to Petitioner, one of ordinary skill in the art would have understood that it would have been necessary to replace the connector on FOPM's CarbonTether cable with Seabrook's "collar 11" and "end 700" in order to allow the CarbonTether cable to be attached to

Seabrook's head unit. *See* Pet. 45. Such a person also allegedly would have realized that the crown portion of FOPM's base would need to be modified to accommodate the shape of "shank 44" of Seabrook's display mounting pod. *See id*. Petitioner's assertions concerning claim 14 are supported by testimony from Dr. Cameron. *See* Cameron Decl. ¶¶ 105–116.

We are persuaded by Petitioner's contentions that Seabrook, Deconinck, and FOPM teach or suggest the undisputed limitations of claim 14. We now turn to the contested limitations of claim 14, and to Patent Owner's other arguments regarding the alleged obviousness of claim 14.

Patent Owner first repeats its arguments that Seabrook does not teach or suggest:

> (i) "a base mounts to the fixture"; (ii) "a post attached to the base, the post extending from the base"; (iii) "retractable reel in the post"; (iv) "a crown with a recession formed therein, wherein the crown is attached to the post"; (v) "a head unit is removable from the post and the head unit houses a printed circuit board ("PCB"); and "the head unit houses a spring which assists in attachment of the cable to the head unit."

Resp. 55. These arguments are not persuasive for at least the reasons discussed above. In addition, in this ground, Petitioner does not rely on Seabrook to supply the base, post, retractable reel, or crown. *See* Pet. 46–53.

Patent Owner next argues that Seabrook "explicitly disclaim[s] the need for an alarm" and "seeks to avoid extra electronic feeder cables above the display fixture" by "running the electrical power internal of the docking means on the fixture." Resp. 56. These arguments are not persuasive because, for example, Patent Owner does not explain how they rise to the level of a disclaimer, much less a teaching away. Having reviewed the portions of Seabrook cited by Patent Owner (*see* Resp. 27, 56 (citing Ex.

1002, 1:23–27, 2:12–16, 2:35–3:7, 3:12–18, 4:18–22, 33:16–20, Fig. 6)) we find nothing that rises to the level of a disclaimer or teaching away.

Patent Owner also argues that "moving the base and electrical wires of FOPM to above the fixture surface is contrary to the explicit purpose of Seabrook, namely to avoid electrical cables above the fixture." Resp. 56. This argument is not persuasive because Patent Owner has not identified any disclosure in Seabrook that rises to the level of a teaching away. Patent Owner then argues that Petitioner has failed to explain "*how* or *why* the combination would occur." Resp. 57. This argument is not adequately developed or persuasive. Petitioner has provided an extensive explanation of why one of ordinary skill in the art would have combined the teachings of Seabrook, Deconinck, and FOPM in the claimed manner. *See* Pet. 40–55; Cameron Decl. ¶¶ 105–116.

Patent Owner next repeats its argument that one of ordinary skill in the art would not have combined the teachings of Deconinck, "including a plunger, a wireless transmitter, and a battery," with Seabrook's device. Resp. 57–58. This argument is not persuasive for the reasons discussed above. *See* § II.E.2.a, *supra*. Patent Owner also argues that FOPM does not teach "a head unit that is detachable from the post as required in the claimed invention." Resp. 58. This argument is not persuasive because Petitioner does not rely on FOPM to supply the recited head unit.

Patent Owner additionally argues that the motivation for combining the teachings of Seabrook and Deconinck with FOPM—"to avoid having to drill the fixture surface"—is somehow "directly against a specific purpose of the design of the Seabrook device." Resp. 59. This argument is not persuasive because, as discussed above, Patent Owner has failed to identify

anything in the cited portions of Seabrook that rise to the level of a teaching away. Patent Owner also argues that Petitioner has not explained why "Seabrook's collar is preferred" over FOPM's security screw. *Id*. at 59–60. This argument is not persuasive because Petitioner has provided a detailed explanation of why this modification would have been necessary, i.e., in order to permit the head unit of Seabrook and Deconinck to be attached to FOPM's CarbonTether cable. *See* Pet. 42–45.

For the above reasons, and having made all of the factual determinations required by *Graham*, we determine based on the totality of the evidence and arguments that Petitioner has shown by a preponderance of the evidence that claim 14 is unpatentable under 35 U.S.C. § 103 over Seabrook, Deconinck, and FOPM.

b. *Claims 15–18 and 20*

Claim 15 requires that the recession in the crown be "configured to receive at least part of the head unit." Petitioner contends that a person of ordinary skill, aware of Seabrook's teachings of a male and female docking means that mate with one another, would have had reason to modify FOPM's crown to receive shank 44 of Seabrook's head unit. Pet. 45–46.

With respect to claim 16, Petitioner contends that collar 11 of the allegedly obvious head unit of Seabrook and Deconinck is a "spring" that is "configured to detach the cable from the head unit." Pet. 54. Petitioner contends Deconinck's disclosure that switch 37 may be an "outwardly biased plunger mechanism" teaches or suggests a head unit including a plunger configured in the manner recited by claim 17. *Id*. at 54–55. Petitioner contends that Seabrook teaches or suggests an adhesive of the type recited in claim 18 for the same reasons discussed above with respect to

claim 8. *Id*. at 55. Petitioner also contends that many, if not all, electronic devices include a "power cable" of the type recited by claim 20, and that Seabrook's electrical connector 830 (part of the allegedly obvious head unit) also satisfies this claim limitation. *Id*. at 55–57. Petitioner supports its assertions regarding claims 15–18 and 20 with testimony from Dr. Cameron. Cameron Decl. ¶¶ 116–122.

Patent Owner does not make any separate, substantive arguments regarding claims 15–18 and 20, but instead relies on its arguments regarding claim 14, which are not persuasive for the reasons set forth above.

For the above reasons, and having made all of the factual determinations required by *Graham*, we determine based on the totality of the evidence and arguments that Petitioner has shown by a preponderance of the evidence that claims 15–18 and 20 are unpatentable under 35 U.S.C. § 103 over Seabrook, Deconinck, and FOPM.

5. *Ground 5: Alleged Obviousness of Claim 19 over Seabrook, Deconinck, Rabinowitz, and FOPM*

Claim 19 is similar to claim 11, and Petitioner's reasons for combining the teachings of Rabinowitz, with the allegedly obvious head unit of Seabrook and Deconinck, are substantively similar to the arguments discussed above with respect to claim 11. *See* § II.E.3, *supra*. Petitioner supports its contentions with testimony from Dr. Cameron. *See* Cameron Decl. ¶ 125. We find Petitioner's contentions persuasive for substantially the same reasons discussed above with respect to claim 11. *See* § II.E.3, *supra*.

In response to Petitioner's contentions regarding claim 19, Patent Owner repeats its arguments regarding claim 14, and its argument that

Petitioner is collaterally estopped from arguing the combination of Seabrook and Rabinowitz. These arguments are not persuasive for the reasons discussed above.

For the above reasons, and having made all of the factual determinations required by *Graham*, we determine based on the totality of the evidence and arguments that Petitioner has shown by a preponderance of the evidence that claim 19 is unpatentable under 35 U.S.C. § 103 over Seabrook, Deconinck, Rabinowitz, and FOPM.

6. *Grounds 6 and 7: Alleged Obviousness of Claims 14–18 and 20 over Seabrook, Deconinck, and Fawcett; Alleged Obviousness of Claim 19 over Seabrook, Deconinck, Rabinowitz, and Fawcett*

Having already determined that claims 14–20 are unpatentable in our analysis of Grounds 4 and 5, we decline to substantively address the alternative contentions, set forth by Petitioner in Grounds 6 and 7, for why those same claims are unpatentable.

III. CONTINGENT MOTION TO AMEND

Pursuant to 35 U.S.C. § 316(d)(1) and 37 C.F.R. § 42.121, Patent Owner moves to cancel claim 2 of the ’336 Patent and replace claims 1 and 3–20 with proposed substitute claims 21–39. MTA 1, 26–33. The Motion to Amend is contingent on our determination as to whether a preponderance of the evidence establishes that claims 1 and 3–20 are unpatentable. MTA 1.

As discussed above, we determine that original claims 1 and 3–20 have been shown by a preponderance of the evidence to be unpatentable. *See* § II.E, *supra*. Therefore, we proceed to address Patent Owner’s Motion to Amend.

A. *Proposed Substitute Claims*

Patent Owner submits the following proposed substitute claims 21–39 (with bracketing indicating deleted text and underscoring indicating added text):

> 21. (Substitute for claim 1, if found unpatentable) A method for removably securing a device to a fixture, the method comprising:
>
> providing a post having a cable and a connector, wherein the post mounts on the fixture;
>
> connecting a head unit to the post with the connector, wherein the head unit has an opening through which the cable extends, wherein the head unit houses a spring arranged to assist in attaching the cable to the head unit, and wherein the head unit attaches to the device;
>
> inserting the head unit into the post to connect the head unit to the connector;
>
> inserting a key into the head unit to allow for removal of the cable from the head unit; and
>
> detaching the connector from the head unit to release the device from the post.
>
> 22. (Substitute for claim 3, if found unpatentable) The method of claim [[1]] 21 further comprising the step of:
>
> aligning the head unit with respect to the post.
>
> 23. (Substitute for claim 4, if found unpatentable) The method of claim [[1]] 21 further comprising the step of:
>
> aligning the connector in the head unit.
>
> 24. (Substitute for claim 5, if found unpatentable) The method of claim [[1]] 21 further comprising the step of:
>
> positioning the connector near the opening of the head unit to secure the cable to the head unit.
>
> 25. (Substitute for claim 6, if found unpatentable) The method of claim [[1]] 21 further comprising the step of:

displacing the spring from the opening to remove the cable from the head unit.

26. (Substitute for claim 7, if found unpatentable) The method of claim [[1]] 21 further comprising the step of:

extending or retracting the cable with respect to the fixture via a reel holding the cable housed within the post.

27. (Substitute for claim 8, if found unpatentable) The method of claim [[1]] 21 further comprising the step of:

providing an adhesive on the head unit to adhere the device to the head unit.

28. (Substitute for claim 9, if found unpatentable) A method for removably securing a device to a fixture, the method comprising the steps of:

attaching a post to the fixture, the post having a crown and a cable, the

cable coiled around a reel in the post, the cable extending from the reel;

securing a head unit to the post by the cable through an opening in the head unit wherein the head unit encloses a spring and a printed circuit board ("PCB") and further wherein the PCB wirelessly communicates with an alarm to provide electrical security to the device;

inserting the head unit into the post to connect the head unit to a connector of the cable; and

inserting a key into a corresponding keyhole in the head unit to move the spring to detach the cable from the head unit.

29. (Substitute for claim 10, if found unpatentable) The method of claim [[9]] 28 further comprising the step of:

triggering, by the PCB, an audible alarm in response to an unauthorized separation of the device from the head unit.

30. (Substitute for claim 11, if found unpatentable) The method of claim [[9]] 28 further comprising the step of:

connecting a power cord to the device wherein unauthorized separation of the device from the power cord triggers an audible alarm.

31. (Substitute for claim 12, if found unpatentable) The method of claim [[9]] 28 further comprising the step of:

monitoring the attachment of the head unit to the device by the PCB.

32. (Substitute for claim 13, if found unpatentable) The method of claim [[9]] 28 further comprising the step of:

displaying the device on the head unit, wherein a recession in the crown receives the head unit.

33. (Substitute for claim 14, if found unpatentable) A system for securing a device to a fixture, the system comprising:

a base, wherein the base mounts to the fixture;

a post attached to the base, the post extending from the base;

a retractable reel in the post, the retractable reel connected to a cable to retract or extend the cable relative to the fixture;

a crown with a recession formed therein, wherein the crown is attached to the post and wherein the cable extends through the crown; and

a head unit connected to the cable, wherein the head unit attaches to the device and wherein the head unit is removable from the post and the head unit houses a printed circuit board ("PCB") configured to monitor attachment of the head unit to the device, wherein the PCB is configured for wireless communication with an alarm box to provide electrical security to the device, wherein the head unit inserts into the post to connect the head unit to a connector of the cable, and wherein the head unit houses a spring which assists in attachment of the cable to the head unit.

> 34. (Substitute for claim 15, if found unpatentable) The system of claim [[14]] 33 wherein the recession in the crown is configured to receive at least part of the head unit for displaying the device.
>
> 35. (Substitute for claim 16, if found unpatentable) The system of claim [[14]] 33 wherein the spring is configured to detach the cable from the head unit.
>
> 36. (Substitute for claim 17, if found unpatentable) The system of claim [[14]] 33 further comprising:
> a plunger extending from the head unit, wherein the plunger is configured to be depressed by the device when the head unit is attached to the device.
>
> 37. (Substitute for claim 18, if found unpatentable) The system of claim [[14]] 33 further comprising:
> an adhesive on the head unit configured to assist in attaching the device to the head unit.
>
> 38. (Substitute for claim 19, if found unpatentable) The system of claim [[14]] 33 further comprising:
> a power cable configured to be connected to the device, wherein unauthorized separation of the power cable from the device is configured to trigger an audible alarm.
>
> 39. (Substitute for claim 20, if found unpatentable) The system of claim [[14]] 33 further comprising:
> a power cable configured to be connected to the device to provide power to charge the device.

MTA 26–33.

B. *Procedural Requirements*

"Before considering the patentability of any substitute claims, however, the Board first must determine whether the motion to amend meets the statutory and regulatory requirements set forth in 35 U.S.C. § 316(d) and

37 C.F.R. § 42.121." *Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, Paper 15 at 4 (PTAB Feb. 25, 2019) (precedential) ("*Lectrosonics*"). Petitioner does not dispute that these requirements are met. *See generally* MTA Resp. For the reasons set forth below, we determine that the statutory and regulatory requirements have been met.

First, the Motion to Amend proposes a reasonable number of substitute claims. 35 U.S.C. § 316(d)(1)(B). "There is a rebuttable presumption that a reasonable number of substitute claims per challenged claim is one (1) substitute claim." *Lectrosonics* at 4–5 (citing 37 C.F.R. § 42.121(a)(3)). The Petition challenges 19 claims. The Motion to Amend proposes 19 substitute claims. We determine that the number of proposed substitute claims is reasonable.

Second, the proposed substitute claims respond to a ground of unpatentability involved in this trial. *Lectrosonics* at 5–6. Patent Owner's amendments propose to introduce into the independent claims limitations taken from non-challenged original claim 2. MTA 1. In particular, Patent Owner seeks to add the steps of "inserting the head unit into the post to connect the head unit to the connector" and "inserting the head unit into the post to connect the head unit to a connector of the cable" to original claims 1 and 9, respectively; and seeks to add the limitation "wherein the head unit inserts into the post to connect the head unit to a connector of the cable" to original claim 14. MTA 26, 29, 31. Patent Owner contends that these amendments render the amended claims patentable over the cited art. MTA 24–25. We determine that the amended language in the proposed substitute claims is responsive to the grounds of unpatentability involved in this trial.

Third, "[a] motion to amend may not present substitute claims that enlarge the scope of the claims of the challenged patent or introduce new subject matter." *Lectrosonics* at 6–8 (citing 35 U.S.C. § 316(d)(3); 37 C.F.R. § 41.121(a)(2)(ii)). We determine that the proposed amendments, which add limitations derived from original claim 2 to each of the independent claims, do not enlarge the scope of the claims or add new subject matter.

Finally, the Motion to Amend includes a claim listing, as required by 37 C.F.R. § 42.121(b). MTA 26–33.

In view of the above, we determine that the Motion to Amend meets the statutory requirements of 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121 in a manner sufficient to allow us to proceed with the issue of whether Petitioner has met its burden of persuasion with respect to patentability.

C. *Claim Construction and Level of Ordinary Skill in the Art*

The parties do not identify any additional claim construction disputes raised by the Motion to Amend that require resolution, or offer any different or additional contentions regarding the level of ordinary skill in the art. Accordingly, in our analysis below, we apply the same claim constructions and level of ordinary skill in the art set forth above. *See* §§ II.B & II.C, *supra*.

D. *Patentability of the Substitute Claims under 35 U.S.C. § 112*

Petitioner contends that the proposed claims are indefinite and lack written description support. Petitioner's specific contentions are addressed below.

1. *Substitute Claims 21–27*

First, Petitioner alleges that the method step in substitute claim 21 of "providing a post having a cable and a connector," wherein "the post mounts on the fixture" is indefinite because it is unclear at what point infringement would occur. MTA Resp. 3–4. We disagree that this language, which was present in original claim 1, renders substitute claim 21 indefinite. Substitute claim 21 is a method claim, and infringement thus occurs when the claimed method is performed, and not before. The limitation "the post mounts on the fixture" defines a capability of the structure used to perform the claimed method, but there is no prohibition on reciting structural limitations in method claims. *See, e.g.*, *Microprocessor Enhancement Corp. v. Texas Instruments Inc.*, 520 F.3d 1367, 1375–76 (Fed. Cir. 2008) (holding that a method claim that recited structural limitations regarding a pipelined processor and method steps implemented by the pipelined processor, was not indefinite because the claim language was "clearly limited to *practicing* the claimed method in a pipelined processor possessing the requisite structure"). Like the claim in *Microprocessor Enhancement*, substitute claim 21 is limited to practicing the claimed method with the structure recited by the claims. The recitation of structure thus does not render substitute claim 21 indefinite.

Second, Petitioner argues that it is not clear what "providing a post having a cable and [a] connector" means because "[h]aving" could be interpreted as either synonymous with "comprising" or in the possessive sense. MTA Resp. 4–5. This limitation also appears in original claim 1 and was not added by amendment. Petitioner's argument is not persuasive. Throughout the Specification, the cable is depicted and described as being

located on a retractable reel within the post, and the connector is depicted and described as being attached to the end of the cable. *See, e.g.*, Ex. 1001, Figs. 1–2, 5:25–32, 6:20–30. In these embodiments, the cable and connector are operatively attached to the post, but are described as being components separate from the post. The specific claim language at issue here echoes language from the Specification describing an embodiment of a "method to attach and detach a device to a fixture" in which there is provided "a post having a cable and a connector." *See id*. at 3:5–8. This embodiment does not describe the cable and connector as being components separate from the post, but other components (such as the fixture, the head unit, and the device) are described separately. *See id*. at 3:5–12. We determine that one of ordinary skill in the art, viewing this language in the context of the Specification would have understood it to encompass embodiments in which the post comprises the cable and the connector, and embodiments in which the post is operatively connected to a separate cable and connector. Thus, this limitation is not indefinite. This limitation also has adequate support in the Specification. *See* Ex. 1001, 3:5–12.

Third, Petitioner argues that the recitation of "connecting a head unit to the post with the connector" in substitute claim 21 is ambiguous because it is unclear whether the connection must be accomplished using the connector. MTA Resp. 6. This language also was present in original claim 1. We disagree that this language is indefinite. The Specification makes clear that the connection is accomplished by inserting the connector into the head unit. *See, e.g.*, Ex. 1001, 2:35–37, 3:8–10. In addition, substitute claim 21 recites the step of "inserting the head unit into the post to connect the head unit to the connector." This limitation, which explicitly requires that

the head unit be connected "to the connector," resolves the purported ambiguity cited by Petitioner.

Fourth, Petitioner argues that the recitation of "inserting the head unit into the post to connect the head unit to the connector" in substitute claim 21 is ambiguous because it allegedly duplicates the step of "connecting a head unit to the post with the connector." MTA Resp. 6. We disagree. The step of "inserting the head unit into the post to connect the head unit to the connector" merely describes the manner in which the separate step of "connecting a head unit to the post with the connector" is accomplished.[11] These limitations are not redundant, and Petitioner has presented no persuasive evidence that one of skill in the art would not have been able to understand them.

Fifth, Petitioner argues that there is no written description support for substitute claim 21's recitation of "inserting the head unit into the post to connect the head unit to the connector," and that this limitation renders the claims indefinite. MTA Resp. 7–10. Petitioner's argument is not persuasive. Petitioner bases its argument on Patent Owner's claim construction assertions that the "post" and "crown" must be separate components, such that "the *crown* is not part of the *post*." *Id*. at 7. As set forth above, we determine that these claim construction arguments are incorrect. *See* § II.C.1, *supra*. Though Petitioner argues that prosecution history estoppel should apply, Petitioner fails to cite any case in which the Board has applied prosecution history estoppel in a trial based on arguments

[11] Indeed, Petitioner admits that there would be no written description support for its alternative construction in which these steps would require two separate connection steps. *See* MTA Resp. 7.

made by a party in that very same trial, much less did so based on claim construction arguments that the Board had rejected. Absent such authority, we decline to apply prosecution history estoppel here. In addition, the above-quoted limitation is supported by the original Specification. *See* Ex. 1001, 3:13–15.

Sixth, Petitioner argues that the limitation "wherein the head unit attaches to the device" in substitute claim 21 is indefinite because "it is unclear whether a head unit must actually attach to a device to meet this method step, or if it is met by connecting a head unit to the post, wherein the head unit is capable of attaching to a device." MTA Resp. 10–11. This limitation was present in original claim 1. Petitioner's argument is not persuasive. Substitute claim 21 does not recite the step of connecting the head unit to the device, and the limitation "wherein the head unit attaches to the device" describes a capability of the head unit, not an additional method step.[12]

Seventh, Petitioner argues that the limitation "inserting a key into the head unit to allow for removal of the cable from the head unit" in substitute claim 21 duplicates the limitation "detaching the connector from the head unit to release the device from the post." MTA Resp. 11–12. Both limitations were present in original claim 1. We disagree with Petitioner's assertions. The step of "inserting a key into the head unit to allow for removal of the cable from the head unit" is a separate step from actually

[12] We note that the final step of substitute claim 21, which recites "detaching the connector from the head unit to release the device from the post," makes clear that the device is attached to the head unit at the time the final step is performed.

detaching the connector from the head unit, as recited in substitute claim 21. We, thus, disagree that these steps render the claim indefinite. These limitations also do not lack written description support. *See, e.g.*, Ex. 1001, 8:66–9:7 (describing an embodiment in which the key is *first* inserted into the head unit, and then *subsequently* used to deflect the spring so as to release the cable).

For the reasons discussed above, Petitioner does not persuade us that substitute claim 21 is indefinite or lacks written description support. Petitioner does not raise any separate, substantive § 112 arguments regarding dependent substitute claims 22–27. *See* MTA Resp. 13. Accordingly, we determine Petitioner has not demonstrated by a preponderance of the evidence that any of substitute claims 21–27 is unpatentable under 35 U.S.C. § 112.

2. *Substitute Claims 28–32*

First, Petitioner alleges that substitute claim 28 is unpatentable because the meaning of "attaching a post to the fixture, the post having a crown and cable" is unclear for substantially the same reasons that the term "having" allegedly rendered substitute claim 21 indefinite. MTA Resp. 13–14. We determine that Petitioner's argument is unpersuasive for substantially the same reasons discussed above. *See* § III.D.1, *supra*. We find that a person of ordinary skill in the art, viewing the claim limitation "the post having a crown and cable" in the context of the Specification, would have understood this term to encompass embodiments in which the post comprises the crown and cable, and embodiments in which the crown and cable are operatively connected to the post. *See, e.g.*, Ex. 1001, 6:5–9 (disclosing that the cable may be located on a retractable reel within a

compartment of the post), 6:39–40 (disclosing that the crown may be attached to the post).

Second, Petitioner argues that substitute claim 28's recitation of "securing a head unit to the post by the cable through an opening in the head unit" is ambiguous because it is unclear what the phrase "through an opening in the head unit" modifies. MTA Resp. 14–18. We are unpersuaded by Petitioner's argument that this limitation, which was present in original claim 9, renders substitute claim 28 indefinite. A person of ordinary skill in the art, reading the claims in view of the Specification, would immediately have understood that the phrase "securing a head unit to the post by the cable through an opening in the head unit" means that the securing of the head unit is accomplished by placement the cable through an opening in the head unit. *See, e.g.*, Ex. 1001, 8:16–17 ("When connecting the cable 34 to the head unit 8, the anchor 38 [of cable 34] may be inserted into the opening 50" of the head unit.).

Third, Petitioner argues that the step of "inserting the head unit into the post to connect the head unit to a connector of the cable" in substitute claim 28 is redundant of the separately recited "securing limitation" for substantially the same reasons Petitioner raised with respect to substitute claim 21. MTA Resp. 15. This argument is not persuasive for substantially the same reasons discussed above in our analysis of substitute claim 21. *See* § III.D.1, *supra*.

Fourth, Petitioner argues that substitute claim 28's recitation of "inserting the head unit into the post to connect the head unit to a connector of the cable" lacks written description support. MTA Resp. 16. We disagree. *See* Ex. 1001, 3:13–15. Petitioner also reiterates its indefiniteness

argument based on its assertion that Patent Owner has conceded that the "post" and "crown" must be separate. *See* MTA Resp. 16. We determine that this argument is unpersuasive for substantially the same reasons discussed above with respect to substitute claim 21. *See* § III.D.1, *supra*.

Fifth, Petitioner argues that it is unclear whether substitute claim 28's recitation of "wherein the PCB wirelessly communicates with an alarm to provide electrical security to the device" is a method step that must be performed, or merely a capability. MTA Resp. 16–17. We disagree that this language, which was present in original claim 9, is indefinite. In our view, this language recites a capability that must be present, not a separate method step that must be performed. Petitioner does not offer any persuasive evidence that one of ordinary skill in the art would have read the claim differently.

For the reasons discussed above, Petitioner does not persuade us that substitute claim 28 is indefinite or lacks written description support. Petitioner does not raise any separate, substantive § 112 arguments regarding dependent substitute claims 29–32. *See* MTA Resp. 17. Accordingly, on this record, we determine Petitioner has not demonstrated by a preponderance of the evidence that any of substitute claims 28–32 is unpatentable under 35 U.S.C. § 112.

3. *Substitute Claims 33–39*

First, Petitioner argues that substitute claim 33 is indefinite for reasons similar to those discussed with respect to substitute claim 21 because it recites "wherein the base mounts to the fixture." MTA Resp. 17. This limitation was present in original claim 14. In our view, this functional language recites a capability that must be met by the claimed function.

Recitations of such functional capabilities do not render a system claim indefinite. *See, e.g., MasterMine Software, Inc. v. Microsoft Corp.*, 874 F.3d 1307, 1316 (Fed. Cir. 2017) ("Because the claims merely use permissible functional language to describe the capabilities of the claimed system, it is clear that infringement occurs when one makes, uses, offers to sell, or sells the claimed system."). Accordingly, we are not persuaded by this argument.

Second, Petitioner argues that the limitations "wherein the head unit attaches to the device" and "wherein the head unit inserts into the post" render substitute claim 33 indefinite because it is unclear whether these recitations are method steps or mere capabilities. MTA Resp. 17–18. These recitations were present in original claim 14. In our view, these functional recitations recite capabilities, not method steps. In reaching this determination, we note that Petitioner has not provided any persuasive evidence that the alleged drafting inconsistencies it cites would have led one skilled in the art to interpret the above-quoted limitations as method steps. *See id*. at 18. Thus, we are not persuaded on this record that these recitations render substitute claim 33 indefinite. *See MasterMine*, 874 F.3d at 1316.

Third, Petitioner argues that the recitation of "a head unit connected to the cable" is indefinite and/or lacks written description support because substitute claim 33 contains a separate limitation reciting "wherein the head unit inserts into the post to connect the head unit to a connector of the cable." MTA Resp. 18–19. We disagree. The former recitation specifies a structural limitation. The latter recitation specifies a capability using functional language. Petitioner does not provide persuasive evidence that one of ordinary skill in the art would interpret this language to require the

allegedly nonsensical step of "inserting a head unit already connected to the cable to connect the head unit to a connector of the cable." *See id*. at 19.

Fourth, Petitioner argues that the recitation in substitute claim 33 of "wherein the head unit inserts into the post to connect the head unit to a connector of the cable" lacks written description support. *See* MTA Resp. 19. We disagree. *See* Ex. 1001, 3:13–15. Petitioner also reiterates its indefiniteness argument based on its assertion that Patent Owner has conceded that the "post" and "crown" must be separate. *See* MTA Resp. 19. We are unpersuaded for substantially the same reasons discussed above with respect to substitute claim 21. *See* § III.D.1, *supra*.

For the reasons discussed above, Petitioner does not persuade us that substitute claim 33 is indefinite or lacks written description support. Petitioner does not raise any separate, substantive § 112 arguments regarding dependent substitute claims 34–39. *See* MTA Resp. 19. Accordingly, on this record, we determine Petitioner has not demonstrated by a preponderance of the evidence that any of substitute claims 33–39 is unpatentable under 35 U.S.C. § 112.

E. *Patentability of the Substitute Claims under 35 U.S.C. § 103*

Petitioner argues that each of the substitute claims is unpatentable under 35 U.S.C. § 103 over the same combinations of references set forth in the Petition with respect to the corresponding original claims. *See* MTA Resp. 19–20. Petitioner contends that the additional limitation of "inserting the head unit into the post to connect the head unit to the connector" would have been obvious over Seabrook. *Id*. at 19–20.

In particular, Petitioner notes that Seabrook's "end 700" (the recited "connector") and "collar 11" (the recited "spring") connect the "tether" (the

recited "cable") to the "display module" (the recited "head unit") when the collar is housed within the cylindrical channel of the head unit. MTA Resp. 20. Petitioner does *not* allege that Seabrook teaches connecting Seabrook's cable and head unit by inserting the head unit into Seabrook's post. Instead, Petitioner makes a multi-part argument. First, Petitioner argues that so-called "snap-fit" connectors with tapered camming surfaces were well known in the art. *Id*. at 21–22 (citing Supp. Cameron Decl. ¶¶ 15–16). Second, Petitioner argues that one of skill in the art would have "found [it] obvious to include similar tapered surfaces" on the upper lip of Seabrook's collar 11 because doing so would have allowed a user to attach the tether to the head unit without manually compressing the collar. MTA Resp. 22–23 (citing Supp. Cameron Decl. ¶¶ 18–19). Alternatively, Petitioner argues that the surfaces of channel 53 could have been tapered to achieve the same result. *See id.* Third, Petitioner contends that if this allegedly obvious modification were made, one of skill in the art would then realize that the head unit could have been attached in a finite number of predictable ways, including by "slid[ing] the head unit on top of the cable while not holding the cable." MTA Resp. 23–24 (citing Supp. Cameron Decl. ¶¶ 21–22). Petitioner's obviousness arguments do not persuade us that the substitute claims are unpatentable under 35 U.S.C. § 103.

Patent Owner offers persuasive evidence that the ferrule that limits the retraction of Seabrook's tether is located some distance away from the end of the tether, and stops the tether from retracting before end 700 of the tether comes into contact with the post. *See* Supp. Mizek Decl. ¶¶ 11–12. Thus, the female docking pod of Seabrook's post would not "support the collar upright." *See* MTA Reply 11 (citing Supp. Mizek Decl. ¶ 12). Petitioner

does not dispute that end 700 of Seabrook's tether is separated from Seabrook's post by some length of tether, and thus is not supported by Seabrook's post. Instead, Petitioner argues that Seabrook's tether is made of "tough metal" and thus "has some rigidity and would stand up without flopping over for a short distance." MTA Sur-reply 5. This argument, however, ignores the fact that Seabrook's tether must be flexible enough to form a coil within retraction unit 540. Petitioner also does not adequately explain why pressing the head unit onto Seabrook's unsupported connector would not simply displace the flexible tether and the connector (which are not supported from below) downward into the post.

For the above reasons, and having made all of the factual determinations required by *Graham*, we determine based on the totality of the evidence and arguments before us that Petitioner has not shown by a preponderance of the evidence that substitute claims 21–39 are unpatentable under 35 U.S.C. § 103.

IV. CONCLUSION

For the foregoing reasons, we conclude that Petitioner has shown by a preponderance of the evidence that claims 1 and 3–20 of the '336 Patent are unpatentable. We also grant Patent Owner's Motion to Amend, cancelling claim 2, and replacing claims 1 and 3–20 with proposed substitute claims 21–39.

In summary:

Original Claims	35 U.S.C. §	Reference(s)	Claims Shown Unpatentable	Claims Not shown Unpatentable
1, 3–8	103(a)	Seabrook	1, 3–8	
9, 10, 12,	103(a)	Seabrook, Deconinck	9, 10, 12, 13	

13				
11	103(a)	Seabrook, Deconinck, Rabinowitz	11	
14–18, 20	103(a)	Seabrook, Deconinck, FOPM	14–18, 20	
19	103(a)	Seabrook, Deconinck, Rabinowitz, FOPM	19	
14–18, 20	103(a)	Seabrook, Deconinck, Fawcett		
19	103(a)	Seabrook, Deconinck, Rabinowitz, Fawcett		
Overall Outcome			1, 3–20	

Motion to Amend Outcome	Claim(s)
Original Claims Cancelled by Amendment	1–20
Substitute Claims Proposed in the Amendment	21–39
Substitute Claims: Motion to Amend Granted	21–39
Substitute Claims: Motion to Amend Denied	
Substitute Claims: Not Reached	

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1 and 3–20 of the ’336 Patent are held unpatentable;

FURTHER ORDERED that Patent Owner’s Contingent Motion to Amend is granted such that original claim 2 is cancelled without

replacement, and original claims 1 and 3–20 are cancelled and replaced by proposed substitute claims 21–39; and

FURTHER ORDERED that because this is a final written decision, parties to the proceeding seeking judicial review of this decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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